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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VIRINDER M. BATRA, VALERIE M. BENNETT,
LARRY A. BROCIIOUS, ANDREW N. CAPELA,
STEPHEN V. FEUSTEL, PETER R. GAMBLE,
JOSEPH M. GDANIEC, JAMES P. HENNESSY, and
MICHAEL J. HOWLAND

Appeal 2008-2319¹
Application 10/068,362
Technology Center 2400

Decided: December 18, 2008

Before JOSEPH L. DIXON, JEAN RAYMOND HOMERE, and
THU A. DANG, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Filed February 06, 2002. The real party in interest is IBM Corp.

I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1 through 12. We have jurisdiction under 35 U.S.C. § 6(b).

Brief Summary of The Invention

As depicted in Figure 1, Appellants invented a method and system for processing a request (115) for location information issued by a mobile device user (102) to a location based application (150) wherein the processing is based on the geographic location of the user. (Spec. 9-10.)

Illustrative Claim

Independent claim 1 further illustrates the invention. It reads as follows:

1. A method of requesting location-based services comprising the steps of:

responsive to receiving a network request for location-based processing from a pervasive device, storing said received network request and forwarding said received network request to a selected location-based application;

receiving a rejection response to said forwarded network request and identifying in said rejection response a request for required location information; and,

locating said required location information from within said stored network request, formulating an augmented network request with said required location information, and forwarding said augmented network request to said selected location-based application, said selected location-based application performing said location-based processing using said required location information provided in said augmented network response.

Prior Art Relied Upon

The Examiner relies on the following prior art as evidence of unpatentability:

Himmel	US 6,167,441	Dec. 26, 2000
Liming	US 2002/0055924 A1	May 9, 2002 (filed Jan. 18, 2001)
Schwartz	US 6,473,609 B1	Oct. 29, 2002 (filed Dec. 11, 1995)
Kimoto	US 6,829,484 B1	Dec. 7, 2004 (filed May 3, 2000)

Rejections on Appeal

The Examiner rejects the claims on appeal as follows:

1. Claims 1 through 12 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Claims 1 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schwartz.
3. Claims 1 through 4 and 7 through 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kimoto and Liming.
4. Claims 5, 6, 11, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kimoto, Liming, and Himmel.

Examiner's Findings and Conclusions

- (1) The Examiner finds that the claims are indefinite because it is unclear how the original network request and the modified request are different from each other. The Examiner also finds it unclear as to what is performing the steps in the method of independent claim 1. (Ans. 3-4 and 10-11.)
- (2) The Examiner concludes that Schwartz renders independent claim 1 unpatentable. Particularly, the Examiner finds that Schwartz' disclosure of a mobile device that submits to a linked server a soft key associated with a URL to thereby process the address of the URL at the network server teaches or suggests the claimed network request for location-based processing received from a pervasive device. Further, the Examiner finds that Schwartz' disclosure of issuing a request for the user to enter more information, such as town information, teaches or suggests the claimed limitation of identifying a required location information from a rejection response to formulate an augmented network request. (Ans. 5-6 and 11-13.)
- (3) The Examiner concludes that the combination of Kimoto and Liming renders claim 1 unpatentable. Particularly, the Examiner finds that Kimoto discloses displaying an error message on the user's mobile terminal if the requested map information sought to be retrieved is not successful. The Examiner also finds that Kimoto discloses that the user provides the town information to refine an initial request. Consequently, the Examiner finds that these disclosures of Kimoto teach or suggest the claimed recitation of receiving a rejection response to a network request and identifying in the

rejection response a request for a required location information to generate an augmented network request. (Ans. 6-7 and 13-14.)

Appellants' Contentions

(1) Appellants contend that the Examiner confuses the breadth of the claim with indefiniteness. Further, Appellants contend that the Examiner relies upon the requirements for enablement in order to make a case for indefiniteness. Particularly, Appellants contend that one of ordinary skilled in the art, having read Appellants' Specification, would have been apprised of the scope of the claimed invention to determine what is performing the steps of method claim 1, and how the modified request is different from the original request. Further, Appellants contend that the ordinarily skilled artisan would have construed the claimed location-based processing as a processing based on the geographic location of the entity requesting the processing as opposed to a processing based on spatial location or network location. Therefore, Appellants submit that the Examiner erred in concluding that the claims are indefinite. (App. Br. 6-7, Reply Br. 2-4.)

(2) Appellants contend that the Examiner erred in concluding that Schwartz renders the claimed invention unpatentable. Particularly, Appellants argue that while Schwartz pertains to the processing of URL information input by a user, Schwartz does not teach or suggest location-based processing pursuant to the ordinary meaning of that phrase. Further, Appellants contend that while Schwartz discloses obtaining additional town information about a selected URL to formulate an updated request, Schwartz does not teach or suggest locating the required location information from

within a stored network request to formulate an augmented network request. (App. Br. 10-12, Reply Br. 5-8.)

(3) Appellants contend that the Examiner erred in concluding that the combination of Kimoto and Liming renders the claimed invention unpatentable. Particularly, Appellants argue that while Kimoto discloses generating an error message if the map data is not successfully retrieved from a map database, the cited combination does not teach or suggest receiving a rejection response to a network request and identifying in the rejection response a request for a required location information to generate an augmented network request. (App. Br. 12-15, Reply Br. 9-10.)

II. ISSUE

1. Have Appellants shown that the Examiner erred in finding that the claimed invention is indefinite? Particularly, the issue turns on whether the ordinarily skilled artisan would have been apprised of what is performing the steps of the method recited in independent claim 1, as well as the differences between the augmented network request and the original network request.

2. Have Appellants shown that the Examiner erred in concluding that Schwartz renders claim 1 unpatentable? Particularly, the issue turns on whether Schwartz teaches or suggests a location-based processing wherein required location information from within a stored network request is located to formulate an augmented network request.

3. Have Appellants shown that the Examiner erred in concluding that the combination of Kimoto and Liming renders claim 1 unpatentable? Particularly, the issue turns on whether the cited combination teaches or suggests receiving a rejection response to a forwarded network request, and identifying in the rejection response a request for required location information.

III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Appellants' Invention

1. Upon receiving a network request (115) for location-based processing from a pervasive device (102), a location service (130) stores the request and forwards it to a selected location-based application (150). (Spec. 10, ll. 8-13.)

2. The location-based application (150) encapsulates the request for the required location information within a rejection response (130), which it returns to the location service (130). (Spec. 10, ll. 18-22.)

3. Upon receiving the rejection response (125), the location service (130) identifies therefrom the request for the required location information, and further locates the required location information from the stored network request (115) to thereby formulate an augmented network request (135). (Spec. 11, ll. 1-5.)

4. The location service (130) then forwards the augmented network request (135) to the selected location-based application (150) for performing a location-based processing using the required information. (Spec. 11, ll. 5-8.)

5. Appellants' Specification defines "pervasive computing" as any non-constrained computing device not physically tethered to a data communication network. It includes computers wirelessly linked to networks, handheld computing devices, wearable systems, and embedded computing systems. (Spec. 2, ll. 1-4.)

6. "Location-based services" generally purport to services that provide to mobile users of pervasive devices and those with whom they communicate to have some knowledge of the geographic proximity of the mobile users. (Spec. 2, ll. 11-13, Reply Br. 3.)

Schwartz

7. As shown in Figure 1, Schwartz discloses a communication network for allowing a mobile computing device (106) to effectively interact with a network server (104) on the Internet via a link server (114). (Col. 5, ll. 19-25, col. 11, ll. 15-33.)

8a. The user of the mobile device depresses a soft key on the mobile device to issue a request to a control engine in the link server. Upon receiving the request, the control engine generates a URL request to the network server to retrieve the desired information. (Col. 12, ll. 54-58, col. 13, ll. 26-34, and col. 14, ll. 18-58.)

8b. Particularly, whenever the mobile device refers an address identifier to a resource locator, the actual address is retrieved from an address buffer in the control engine to generate the URL request. (Col. 15, ll. 34-64.)

9. As shown in Figure 7G, Schwartz discloses a sub-menu display (724) in the mobile device that asks for further information in order to deliver more accurate information to the user. For instance, upon the user supplying the town information, and depressing the soft key, the control engine generates an updated request with the location information, and it is forwarded to the network server to refine the search. (Col. 17, ll. 24-45.)

Kimoto

10. As depicted in Figure 1, Kimoto discloses a mobile communication system wherein a mobile terminal (1) transmits its position information to an information center on the Internet. Upon receiving the position information, the information center retrieves from a data accumulating unit (21) map information showing the current position of the mobile unit as well as other facilities surrounding the unit. (Abstract, col. 16, ll. 31-41.)

11. As shown in Figure 12 or 18, if the map retrieval is not successful, the information center displays an error message (S8) instructing the user of the mobile device to click a point on the map to designate the town coordinates pertaining to the user's location. Upon retrieving the map

data, it is displayed on the user's mobile terminal. (Col. 35, l. 11- col. 36, l. 20.)

IV. PRINCIPLES OF LAW

Claim Construction

"[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d at 1312 (internal citations omitted). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313.

"[T]he PTO gives claims their 'broadest reasonable interpretation.'" *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989)). Our reviewing court has repeatedly warned against confining the claims to specific embodiments described in the specification. *Phillips v. AWH Corp.*, 415 F.3d at 1323.

Indefiniteness

A claim is indefinite if, when read in light of the specification, it does not reasonably apprise those skilled in the art of the scope of the invention. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1342 (Fed. Cir. 2003). Along the same line, our reviewing court has held that the test for

definiteness under 35 U.S.C. § 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986). Further, our reviewing court has held that the claim as a whole must be considered to determine whether the claim apprises one of ordinary skill in the art of its scope, and therefore serves the notice function required by 35 U.S.C. § 112, second paragraph by providing clear warning to others as to what constitutes the infringement of the patent. *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379 (Fed. Cir. 2000). If the language of the claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claims so as to understand how to avoid infringement, a rejection of the claim under 35 U.S.C. § 112, second paragraph is deemed appropriate. *Morton Int’l, Inc. v. Cardiinal Chemical Co.*, 5 F.3d 1464, 1470 (Fed. Cir. 1993).

Obviousness

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner’s position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) (“On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.”) (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

Section 103 forbids issuance of a patent when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1734 (2007).

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” and discussed circumstances in which a patent might be determined to be obvious. *KSR*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966)). The Court reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.* at 1740.

The Federal Circuit recently recognized that “[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.” *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing *KSR*, 127 S. Ct. 1727, 1739 (2007)). The Federal Circuit relied in part on the fact that Leapfrog had presented no evidence that the inclusion of a reader in the combined

device was “uniquely challenging or difficult for one of ordinary skill in the art” or “represented an unobvious step over the prior art.” *Id.* at 1162 (citing *KSR*, 127 S. Ct. at 1740–41).

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. *See In re Kahn*, 441 F.3d 977, 987-988 (Fed. Cir. 2006), *In re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991) and *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Moreover, in evaluating such references it is proper to take into account not only the specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826 (CCPA 1968).

In identifying a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art teachings, the Examiner must show some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR*, 127 S. Ct. at 1741.

V. ANALYSIS

35 U.S.C. § 112 Rejection

We do not agree with the Examiner’s conclusion that the method of independent claim 1 is indefinite. As set forth in the Findings of Fact section, one of ordinary skill in the art, having read Appellants’

Specification, would have been readily apprised that the location service (130) is performing the method steps of independent claim 1. (FF. 1-4.) Therefore, the ordinarily skilled artisan would readily recognize that the network requests are stored in the location service. Similarly, the ordinarily skilled artisan would appreciate that the augmented network request is simply a combination of the stored network request and the required location information obtained from the rejection response. It follows that Appellants have shown that the Examiner erred in concluding that claim 1 is indefinite. For these same reasons, we do not agree that claims 2 through 12 are indefinite. We therefore, will not sustain the Examiner's decision rejecting claims 1 through 12 as being indefinite.

35 U.S.C. § 103 Rejection

1. *Schwartz*

Independent claim 1 requires in relevant part (1) storing a received request for location-based processing from a pervasive device, and (2) locating required location information from within the stored network request to formulate an augmented network request. As set forth in the Findings of Facts section, Schwartz discloses a control engine in a link server having a buffer for storing URL information corresponding to a predetermined a soft key on the user's mobile device. (FF. 8a, 8b.) The associated URL, in turn, is forwarded to the network server in order to retrieve the corresponding website, and return it to the user. (FF. 7.) We agree with the Examiner that Schwartz' processing of the URL teaches or

suggests location based processing. While Appellants' Specification discusses the ordinary meaning of 'location-based services,' it fails to extend such ordinary meaning to the claimed "location-based processing." (FF. 6.) In our view, Appellants' attempt to extrapolate the ordinary meaning of the claimed 'location-based processing' from the ordinary meaning of 'location-based services' does not necessarily follow and is not reasonable in this instance. Therefore, one of ordinary skill in the art would reasonably find that Schwartz' disclosure of storing the URL in the buffer of the control engine for processing at the network server reasonably teaches storing a received request for location-based processing from a pervasive device, as recited in independent claim 1.

Next, Schwartz discloses providing the user of the mobile device with a request to supply town information as part of the soft key to thereby refine the URL search. (FF. 9.) We agree with that the Examiner that Schwartz' teaching of incorporating the town information in the initial URL amounts to an augmented network request. However, we find that the suggested town information is not located from within the initial URL information stored in the buffer of the control engine. Therefore, we do not agree with the Examiner that Schwartz fairly teaches or suggests locating required location information from within the stored network request to formulate an augmented network request. It therefore follows that Appellants have shown that the Examiner erred in concluding that Schwartz renders independent claims 1 and 7 unpatentable.

2. *Kimoto and Liming*

Independent claim 1 recites in relevant part receiving a rejection response to a forwarded network request, and identifying in the rejection response a request for required location information. As detailed in the Findings of Facts section above, Kimoto discloses upon receiving position information from a mobile device, a central server attempts to retrieve map information depicting the location of the mobile device as well as surrounding facilities thereon. (FF. 10.) As discussed above, we agree with the Examiner that the claimed invention is not limited to Appellants' narrow construction of "location-based processing" since the record is devoid of any evidence of its ordinary use or meaning in the art. Consequently, we agree with the Examiner that by generating the map information using the received position information from the mobile device, Kimoto's central server teaches performing location-based processing. In other words, it teaches processing location information of the mobile device to generate the map information.

Next, Kimoto discloses displaying an error message on the user's mobile device if the map retrieval is unsuccessful, and allowing the user to click on the map to indicate town coordinates as a way to refine the search request. (FF. 11.) In our view, the ordinarily skilled artisan would have recognized that since the user has to click on the map retrieved with the error message to designate the town information, Kimoto reasonably teaches that the location information is contained within the rejection response to retrieve the map. Therefore, by clicking on a point on the retrieved map, the user is

identifying in the error message the location of the town information. It follows that Appellants have not shown that the Examiner erred in concluding that the combination of Kimoto and Liming renders independent claim 1 unpatentable.

Appellants did not provide separate arguments with respect to the rejection of claims 1 through 4 and 7 through 10. Therefore, we select independent claim 1 as being representative of the cited claims. Consequently, claims 2 through 4 and 7 through 10 fall together with representative claim 1. 37 C.F.R. § 41.37(c)(1)(vii).

3. *Kimoto, Liming, and Himmel*

Appellants argue that the combination of Kimoto, Liming, and Himmel does not render claims 5, 6, 11, and 12 unpatentable. Particularly, Appellants argue that Himmel does not cure the deficiencies of the Kimoto-Liming combination. (App. Br. 15-16.) We do not agree. As discussed above, we find no such deficiencies in the Kimoto-Liming combination for Himmel to remedy. It follows that Appellants have not shown that the Examiner erred in concluding that the combination of Kimoto, Liming, and Himmel renders independent claims 5, 6, 11, and 12 unpatentable.

CONCLUSIONS OF LAW

A. Appellants have shown that the Examiner erred in concluding that:

1. Claims 1 through 12 are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention under 35 U.S.C. § 112, second paragraph.
 2. Schwartz renders claims 1 and 7 unpatentable under 35 U.S.C. § 103(a).
- B. We reverse these rejections.
- C. Appellants have not shown that the Examiner erred in concluding that:
1. the combination of Kimoto and Liming renders claims 1 through 4 and 7 through 10 unpatentable under 35 U.S.C. § 103(a).
 2. the combination of Kimoto, Liming, and Himmel renders claims 5, 6, 11, and 12 unpatentable under 35 U.S.C. § 103(a).
- D. We affirm these rejections.

DECISION

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's decision is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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